

The “Anthropocentric” Cosmology of the Bhagavad Gītā

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ABSTRACT

This study exposes and analyzes an ancient Hindu cosmological speculation from the human point of view, that is, anthropocentric and cosmogonic at the same time, an ancient Hindu atomistic known by *Tattwa Vidyā* (Knowledge of the Principles of Existence) from the human model, such as exposed in the *Bhagavad Gītā*. A very strange idea for today's cosmology. It is a cosmology without astronomy, based on the human model, and the structure of the universe is exposed through a cosmogony totally contrary to the current scientific cosmogony. That is, the order of cosmic emanation in the two visions is diametrically opposite, because the what first appeared in the universe, in the Hindu view, as well as what appeared last, is the opposite of the order of emanation in the scientific view. In the order of evolution of the *Tattwas*, the Primordial Matter (*Prakṛti*) unfolded first in Intellect (*Mahat*), then in Egoism (*Ahaṁkāra*), then in Mind (*Manas*), in the Senses Organs (*Jñānendriyas*), in the Organs of Action (*Karmendriyas*) etc. In the scientific view, it is the opposite, the intellect was the last to emerge in the

evolution of species, because it depended on millions of years of development of the human brain, from the first hominids to modern man.

KEYWORDS: *Tattwas*, *Bhagavad Gītā*, Ancient Cosmology, *Sāmkhya*.

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The Hindu Mythological Cosmology

The oldest mentions speak of three worlds (लोकाः - *lokāh*): स्वर्ग - *swarga* (Heaven); पृथ्वी - *prthwī* (Earth) and पाताल - *pātāla* (hell) (*Arthāva Veda* X.06.31 and *Shatapatha Brāhmaṇa* XIII.01.07.03). The *Bhagavad Gītā* mentions the three worlds (त्रिलोकाः - *trilokāh*), III.22. Other passages speak of worlds (*lokāh*), but do not specify which worlds (XI.23, 29 and 43). The only mention of the name of one of these worlds appears in passage VIII.16: आ ब्रह्मभुवनाल्लोकाः - *ā brahmabhuvanāllokāh* (the worlds, even the world of *Brahmā*), also without providing details of the worlds. Further on, Hinduism developed a more articulate and extensive mythology, recorded in a numerous collection of texts known as the *Purānas*¹, with the elaboration of 14 worlds (*lokāh*),

¹ In the classification of Orthodox Hinduism, there are 18 *Mahāpurānas* (Principal *Purānas*) and 18 *Upapurānas* (Supplementary *Purānas*). They were composed in the form of *shlokas* (verses in two lines with 32 syllables), the *Mahāpurānas* alone add up to about 400 thousand *shlokas*. The *Purānas* represent the second generation of Hindu Mythology; the first generation is Vedic Mythology, so that they are later. They continue some themes of Vedic Mythology, alter them through additions or syncretisms of new themes and new gods (and goddesses), which arose after the Vedic period or were absorbed from the pre-Vedic tradition preserved orally.

with 7 upper worlds and 7 lower worlds. The superiors are, in order from the lowest to the highest: *bhūrloka*, *bhuvarloka*, *swargaloka*, *maharloka*, *janarloka*, *taparloka* and *brahmaloka* (or *satyaloka*). The lowest, in order from the highest to the lowest, are: *atalaloka*, *vilataloka*, *mutalaloka*, *rasātalaloka*, *talatalaloka*, *mahātalaloka* and *pātālaloka*² (see: *Bhāgavata Purāna* V.21-6; *Vishnu Purāna* II.08-12; *Matsya Purāna* 124 -8; *Devī-bhāgavata Purāna* VIII.05-20; *Agni Purāna* 121-2 and *Garuda Purāna* 59-64). This is the mythological version of Hindu cosmology from a macro point of view, through primitive astronomy, an exhibition of the structure of the universe with its different upper and lower worlds, something like a geography of the Earth, the heavens and the hells, without a cosmogony. However, this will not be the subject of the following study, it will be the subject of another study.

What the study below will address is the ancient Hindu cosmological speculation from the micro point of view, that is, anthropocentric and cosmogonic at the same time, an ancient Hindu atomistic known by (*Tattwa Vidyā* - Knowledge of the Principles of Existence) from the human model, therefore, less mythological and more speculative. A very strange idea for today's cosmology. This doctrine, in its most developed phase, reminds us,

² Names and order may vary from text to text.

in a few passages, somehow of the Anthropic Principle.³

It is a cosmology without astronomy, based on the human model, and the structure of the universe is exposed through a cosmogony totally contrary to the current scientific cosmogony, that is, the order of cosmic emanation in the two visions is diametrically opposite, because the which appeared first in the universe, in the Hindu view, as well as what appeared last, is the opposite of what emerged according to scientific emanation. For example, in the order of evolution of the *Tattwas*, the Primordial Matter (*Prakṛti*) unfolded first in the Intellect (*Mahat*), then in Egoism (*Ahaṁkāra*), then in the Mind (*Manas*), in the Senses Organs (*Jñānendriyas*), in the Organs of Action (*Karmendriyas*) etc. In the scientific view, it is the opposite, the intellect was the last to emerge in the evolution of species, as it depended on millions of years of development of the human brain (Cunnane, 2010, *passim*), from the first hominids to modern man (see: Christian, 2004; Kragh, 2007; Larsen, 2007; Langmuir, 2012 and Baggott, 2018). Therefore, the following study will show and analyze the primitive notion about the structure of the universe, through the seminal idea of *Tattwas* (Principles of Existence), as expounded vaguely in *Bhagavad Gītā*.

³ For the confusion between cosmology and psychology in *Sāṃkhya* System, see: Bronkhorst, 1999: 679s.

The Two Identities

Bhagavad Gītā (भगवद्गीता) curiously enjoys two identities. A first and original, which is to be an excerpt from the great epic *Mahābhārata* (Book VI - *Bhīshma Parvan*, chapters 23-40 - Critical Edition), and a second, which was to have become an autonomous work and to have established itself as the most popular text in Hinduism. That is, until today it is published, read and adored as a single book, that is, an independent work in its own right. Of the other didactic portions in the epic, it surpassed in admiration and popularity the *Sanatsujāta* (*Parvan* V chapters 42-5 - Critical Edition), the *Mokshadharma* (*Parvan* XII chapters 168-353 - Critical Edition) and the *Anugītā* (*Parvan* XIV - Critical Edition), the latter is another dialogue between *Kṛṣṇa* and *Arjuna*. None of these three sections has become an autonomous work.

The Impetus for Perpetuation

A common feature in religions is the search for the consolidation of the perpetuity of the message and the example of their visionaries. All of them exalt a glorious moment whose sayings and events are eternalized as models to be believed and followed forever. Even those who surround the prophet or the enlightened one, that is, family members, relatives and early followers,

are perpetuated as saints, as it is a special and glorious moment that, due to sublimity, needs to be eternalized. So, the message is accepted as an “eternal truth” and never as a postulate or a hypothesis. The belief in the truth of the message is a hallmark in all religions. That is why we have never heard or read a religious visionary claim that his message is a hypothesis to be confirmed in the future, otherwise, what we always hear is the statement that his teachings are “absolute and eternal truths”, transmitted through a convinced and safe speech. For this reason, there is no lack of praise for some founders: Son of God (Jesus), the Enlightened One (*Buddha*), Divine Incarnation (*Kṛṣṇa*) and Messenger of God (Muhammad). That is why we do not know preaching with the use of hesitant words such as: I think, perhaps, it may be, I suppose, probably, etc. The word doubt does not exist in the preachers' dictionary. In order to be convincing, the religious visionary needs to communicate in a convincing manner, so that there was never a religious leader hesitant in his message or, if he did, his message was not convincing, hence he fell by the wayside. Finally, among the different forms of cultures, the religions, with their visionaries, are the greatest agents in the art of perpetuating ideas, immortalizing practices and eternalizing moral rules.

In view of the great diversity of obsolete ideas in *Bhagavad Gītā*, in this study, we will only deal with the evolutionary distance between the

perpetuation of the notions of the very seminal cosmology of *Gītā* in Antiquity and, at one time or another, we will make comparisons with the conceptions of the more developed *Sāmkhya* System, and also with the sophisticated conceptions of current scientific cosmology, based on the idea of progressive scientific knowledge. For, for scientific epistemology, there are no “eternal truths”, but, in a very different way, progressive degrees of certainty and precision according to the evolution of rigor in research methods. As well as pointing out the gradual increase in the obsolescence of the seminal cosmological notions of *Gītā*, in the face of the development of future Hindu speculations. That is, the *Gītā* cosmology is not primitive only in the face of today's sophisticated cosmology, which is very reasonable to expect, due to the chronological distance, but also in relation to the future cosmological speculation of the Classic *Sāmkhya* system and other systems that assimilated, whose *Gītā* has some seminal ideas in common.

For example, regarding the historical development in the Hindu context, Franklin Edgerton included the speculations of *Bhagavad Gītā* in the time corresponding to the “beginning of Indian Philosophy” in his reference work, *The Beginnings of Indian Philosophy* (Edgerton, 1965: 197-251). E. H. Johnson classified the section *Mokshadharma*, *Bhagavad Gītā* and *Anugītā*, all excerpts from the epic *Mahābhārata*, as primitive

speculations of *Sāmkhya* (Johnson, 1937: 04-7).⁴ In addition, Gerard J. Larson, in his reference work, *Classical Sāmkhya*, put the speculations of *Bhagavad Gītā* in the phase corresponding to the proto-*Sāmkhya* period (Larson, 1979: 108-34 and 1987: 04).⁵

Bhagavad Gītā is no exception, like all ancient religious books, it is full of obsolete speculative ideas. The attempts of current devotees and admirers to update *Gītā* speculations with current scientific findings are problems that require further careful analysis.

The Absence of Historicity

A hallmark of Indian culture for many centuries was its neglect of historical records. Unlike other peoples which, since Antiquity, have produced historians such as Herodotus (5th century b.c.e.) and Thucydides (460-400 b.c.e.) in Greece, Fabius Pictor (3rd and 2nd centuries b.c.e.) and Titus Lívius (3rd century b.c.e.) in

⁴ E. H. Johnson noted, "The work (the *Gītā*) adds little to our knowledge of the primitive *Sāmkhya* ..." (Johnson, 1937: 07). For an extensive list of works and authors of the *Samkhya* tradition, with approximate dates, from *Upanishad* period to 20th century, see: Larson, 1987: 15-8.

⁵ In the opposite direction of these authors, P. Chakravarti evaluated the *Sāmkhya* of *Gītā* as developed, only because of the extensive elaboration of morality based on the three *Gunas* (Chakrvarti, 1951: 58-60).

Rome, Sima Qian (2nd and 1st centuries b.c.e.) in China and Maneton (3rd century b.c.e.) in Egypt, the Indians did not know the historiography until the arrival of Muslim invaders in the Middle Ages. Thus, for many centuries, Indians mistook history for mythology, so they developed a credulous culture in narratives that had no historical confirmation. An example is the extensive collection of *Purānas*, mythological texts whose Hindus attribute historicity.

This immense credulity of the Indians in stories and in characters without historical proof shocked the colonizers during British domination. Accustomed to venerating Jesus, whose historicity is more possible to trace, the English were horrified by the dimension of credulity and the high degree of Hindu veneration for the god *Kṛṣṇa*, whose existence was not confirmed. Richard H. Davis observed, “For British eyes, *Kṛṣṇa*’s lack of historicity reflected the unfortunate lack of historical awareness among Indians. As Mill stated: ‘in India (...) the actions of men and those of deities are united in a set of legends, the most absurd and extravagant, the most transcendent to the limits of nature and reason, (however) less grateful to the imagination and taste of a rational and civilized people” (Davis, 2015: 85).

The historicity of *Mahābhārata*’s events and characters has not yet been confirmed by historians. For those who believe in their historicity, the suggested dates vary widely among

proponents and reach even those who understand that the events never happened, despite the immense belief and zealous devotion of the Hindus, especially for their protagonist, the god and hero *Kṛṣṇa*. Therefore, the distance between the fervent worship of Hindus by the god *Kṛṣṇa* and the complete absence of proof of his existence is something that even seems like a collective delusion. Therefore, while there is no historical confirmation of events, *Kṛṣṇa*, *Mahābhārata* and *Bhagavad Gītā* remain as myths.

Interpolations

The attribution of *Gītā* authorship to only one author, *Kṛṣṇa Dwaipayana Vyāsa*, the author of *Mahābhārata*, according to Hindu tradition, then also author of *Gītā*, which is inside the epic, contradicts most historians' opinions about the composition of the text, based on internal and external evidences (archeology, iconography, epigraphy and numismatics), linguistic, grammatical and euphonic analysis, as well as on Textual Criticism, Philology and Literary History (for an in-depth study of *Vyāsa*, see: Hiltebeitel, 2001: 32-91). Historical researches lead to the hypothesis that *Gītā*, like *Mahābhārata*, are the result of a long and gradual process of adding excerpts by anonymous authors from an initial composition, perhaps the *Bhārata* of 24 thousand verses, mentioned in the first *parvan* of

Mahābhārata (I.01.60 - Van Buitenen, 1983: 22), whose oldest passages may have been transposed into written form from 400 b.c.e., and the subsequent interpolations may have extended to 500 c.e. (Van Buitenen, 1981: 05-6; Malinar, 2007: 14 and Davis, 2015: 38), so it is only possible to propose approximate dates. The details of what are and what are not interpolations in *Gītā*, when they occurred, how they were inserted, etc., are very controversial, due to the conjectural character of the researchers' suggestions. These conjectures have increased so much over time that, therefore, some recent authors have preferred to suggest only approximate dates and not to discuss the details of how the long process of interpolations happened (example: Davis, 2015: 16).

Just so that the reader has a notion, a curious suspicion of interpolation in the *Gītā* is that maintained by the defenders that the whole chapter XI (*Vishwarūpadarshana Yoga* - *Yoga* of the Vision of the Universal Form) is an interpolation inserted in the text from a pre-existing independent composition. This chapter is the most poetically beautiful of the entire *Gītā*, when *Kṛṣṇa* reveals to his disciple *Arjuna* his Universal Form (*Vishwarūpa*), through a theophany so splendid and dazzling that it resembles an outbreak of delusion of grandeur. *Kṛṣṇa*'s splendor is compared to the light of a thousand suns (XI.12), even so *Arjuna* was not incinerated,

nor was he blinded, as he was contemplating with the divine eye (दिव्यम् चक्षु - *divyam chakshu*) granted by *Krshna* (XI.08). The experience is exaggerated, but the poetic writing of the chapter is beautiful.

Now, what leads researchers to suspect the complete interpolation of this chapter XI is the fact that the first verse of the next chapter (XII.01) completely ignores the ecstatic and splendid theophanic experience of the previous chapter, the most magnificent in the entire *Gītā* text, that is, there is no bridge between the previous episode and the change of subject in the next chapter, thus continuing the themes of chapter X: “*Arjuna* said: Those devotees who, thus harmonized, adore you and those, too, who love the Imperishable (*Aksharam*), the Unmanifested (*Avyaktam*), which of these has the greatest knowledge of Yoga?” (XII.01). That is, after such transcendental experiences, *Arjuna* suddenly lowered himself to the point of having such primary doubts as this one. What is intriguing is that all this magnificent theophanic experience, narrated in chapter XI is not mentioned in the following chapters of the *Gītā*, nor in the rest of the *Mahābhārata*, as if nothing so magnificent had occurred, not even in the other long didactic excerpts, such as the *Mokshadharma* (Book XII chapters 23-40, Critical Edition) and later in the other dialogue between *Krshna* and *Arjuna*, the *Anugītā* (Book XIV chapter 16), the latter being more extensive than *Bhagavad Gītā* itself (18

chapters) with 36 chapters, thus signaling for a possible interpolation in full of chapter XI.

In addition, after reading this chapter XI, the reader will be left with the doubt about what remained for *Arjuna* to learn after that transcendental universal experience of theophany. So, what is the reason for the following instructional chapters, since that magnificent experience seemed like a culmination? Anyway, chapter XI should be the last one, because it has more of an ending and a conclusion than a plot and preparation, because, as it stands, it looks like something in a literary novel the conclusion is placed in the middle of the book instead of end.

The theses on interpolations in *Gītā* are not unanimous among researchers. There are those who defend a contrary view, that is, that the text was the same since the initial composition, without suffering additions. Indian thought scholar Surendranath Dasgupta (1885-1952) defended the thesis that the *Gītā* text is pre-Buddhist and pre-Jain, due to the absence of mention of these religions, as well as their archaic grammatical style, which he pointed out as contrary to *Pāṇini*'s grammar (c. 520-460 b.c.e.). For him, "*Gītā* was in all probability the oldest work of the *Ekāntin* school of the *Bhāgavatas*" (Dasgupta, 1975, vol. II, 548), a school that he identified, in a note (p. 548n3), with the *Sātvata* faith or *Pancha-rātra*, the latter still very vigorous in southern India. According to this author, "the style of *Gītā* is very archaic", so, in

order to demonstrate the pre-*Pāṇini* character of *Gītā* grammar, he pointed out some verbs, some *sandhi* rules and other words that appear in a way that goes against the rules of *Pāṇini's* grammar (see: *idem*, 551).

J. A. B. Van Buitenen also shared a similar view. He understood *Gītā* as an integral part of *Mahābhārata*: “*Bhagavadgītā* was conceived and created in the context of *Mahābhārata*. It was not an independent text that somehow entered the epic. On the contrary, it was conceived and developed to bring a climax and a solution to the dharmic dilemma of a war that was just and harmful...” (Van Buitenen, 1981: 05-6). However, these are also hypotheses, whose acceptance is not general, most historians defend the thesis of gradual interpolations (for a brief update, see: Malinar, 2007: 15 and Davis, 2015: 39). Strictly speaking, almost all interpolation proposals are based on clues and not evidences, so the debate continues.

The Transmission

The *Bhagavad Gītā* is narrated by *Sanjaya*, who was endowed with divine vision by the sage *Vyāsa*, in order to narrate the events of the battle to the blind king *Dhītarāshtra*, father of the *Kauravas*, both sitting in the royal palace in *Hastinapura*, more than a hundred miles away *Kurukshetra*, the place of battle. The vision granted

by *Vyāsa* enabled him to see from a distance. Then, afterwards, *Vyāsa* collected *Sanjaya's* account, other excerpts from the epic narrated by others and put them together in a single composition, and transmitted it to his five disciples in his *ashram*.

Many years after the war in *Kurukshetra*, *Arjuna's* great-grandson, King *Janamejaya*, made a great sacrifice of the serpent in *Taxila*. The elderly wise *Vyāsa* was present at the sacrifice with his disciples. Since *Vyāsa* was a witness to the acts of the *Pāndavas* and the *Kauravas*, *Janamejaya* asked him to tell the story of the battle of his ancestors. Then, *Vyāsa* asked his disciple *Vaishampāyama* to relate the story as he heard it. *Vaishampāyama* obediently recited the epic story he had learned from his master to King *Janamejaya*. So, most of the *Mahābhārata* narrative is a conversation between *Vaishampāyama* and King *Janamejaya*.

One of the attentive spectators in *Taxila* was *Ugrashravas*, an itinerant poet. After listening to *Vaishampāyama's* narrative, *Ugrashravas* headed for an ashram in the *Naimisha* forest, where he met *Shaunaka* and a group of Brahmin sages, who were engaged in a long-lasting sacrifice. With plenty of free time, the sages asked *Ugrashravas* about the sacrifice of the serpent sponsored by *Janamejaya* and the great story that *Vaishampāyama* had recited there. *Ugrashravas*

recited the story and supplemented it with additional materials (Davis, 2015: 370).

This was human transmission. The first lines of *Mahābhārata* mention divine transmission. “*Dwaipāyana* (Vyāsa) first taught it to his son *Shuka*, and then the master passed it on to other students who were prepared for such a task. *Nārada* recited it to the Gods, *Asita Devala* to the Ancestors and *Shuka* to the *Gandharvas*, *Yakshas* and *Rākshasas*” (I.01.60 - Van Buitenen, 1983: 22-3).

So, from then on the oral transmission continued, we do not know for how many centuries, since the date of the events is not historically known, in order to know since the transmission began, based on the amplified version of *Ugrashravas*, extracted from the recitation from *Vaishampāyana*, during the sacrifice sponsored by *Janamejaya*, based on the compilation known through *Vyāsa* who, in turn, assembled his compilation of the *Gītā* excerpt from *Sanjaya*'s narrative to blind king *Dhrtarāshtra*. Then, *Mahābhārata* is an extensive composition, which reproduces a complex sequence of successive oral reports involving multiple narrators. This oral transmission continued until the 5th century b.c.e., when the first written compositions were created.

Textual historians postulate that the epic began with oral narrators who recounted heroic tales from the past. Perhaps there was a battle

between rival clans around 900 b.c.e., which formed the initial nucleus for the formation of the epic narrative, but, gradually, the reports deviated from the historical nucleus and assumed a different narrative nature of their own. These broadcasts were eventually brought together and formed a single central story, with many digressions and added material, which, at some point, was translated into a written version. It remains to be seen when and why the epic was written.

Recent research on *Mahābhārata* has emphasized that political and religious developments in classical India have provided a strong impetus for transforming ancient stories of *kshātrīyas* battles into a vast new epic narrative. Notably, the emergence of Buddhism and Jainism, movements of renunciation, which explicitly denied Vedic and Brahmanic authority, posed a powerful ideological challenge for defenders of Hindu orthodox traditions. The rise of the *Mauryan* dynasty (c. 323-185 b.c.e.), which united many regions of the subcontinent under a single imperial government, also raised new questions, particularly when emperors like *Ashoka Maurya* sponsored Buddhist institutions more than Hindus. In response to this fundamental challenge to Vedic and Brahmanic authority, the authors of *Mahābhārata* sought to articulate a new view of the royal government itself based on a modified Vedic tradition. This perspective suggests that the sponsorship to compose the epic may well have

come from a post-*Mauryan* dynasty, such as that of the *Shungas*, who dethroned the *Mauryan* government in 185 b.c.e., and explicitly sought to restore the predominance of the practices of Brahmanic orthodoxy, or that of the *Kanvas*, who replaced the *Shungas* and ruled until 28 b.c.e.

Among researchers, James Fitzgerald postulated the existence of a shorter initial work, a proto-*Bhārata* composed during the *Shunga* period and subsequently expanded over the next few centuries. A little later, perhaps under the rule of the imperial *Guptas* (320 c.e. - 497 c.e.), an official writing of the *Mahābhārata* was completed. This widely enacted *Gupta* period work has become the archetype for all lineage of manuscripts that exist today. When Indian researchers who worked at the *Bhandarkar Oriental Research Institute* in Pune, India, from the 1920s to the 1960s, and extracted a critical edition from the hundreds of available manuscripts, their edition probably approached the written version *Gupta* (Davis, 2015 : 37-9; see also: Malinar, 2007: 14-6).

The Pretended Eternity of the *Gītā* Message

It is necessary to point out that *Bhagavad Gītā* (भगवद्गीता) is a beautiful text of classical poetry, a masterpiece of ancient literature, but by no means a treatise on philosophy, much less on science. It is not even possible to attribute it as a treatise on religious philosophy, since it was

composed through poetry in verse, hence the name *Gītā* (गीता), Song; therefore, it lacks the ingredient of theological rationality. Therefore, *Gītā* is not spoken, it is sung, because it is a song (*gītā*). Furthermore, to say that it is an exposition of *Brahma Vidyā* (Science of the Absolute), as some dazzled interpreters proclaim, means to return the understanding of science to the most primitive notion of scientificity. In other words, it is confusing science with rudimentary speculation steeped in mythology.

However, there is no doubt that, in one or a few other passages in the *Gītā*, its teaching has validity up to the present day, especially in themes related to human emotion. Since human emotions and the unconscious have changed little since antiquity to the present day, when compared with the development of Cosmology, a well-known example is the large number of elements of Greek mythology used by Sigmund Freud in his theory of Psychoanalysis (Oedipus complex, Narcissism, Eros myth, etc.). Now, it is very different to believe that its whole message, without exception, is an eternal doctrine, with full applicability today and even in the future. Therefore, for the *Gītā* admirer, if any subject turns out to be different from its message, it is a decadence of the current culture, especially in the moral question, and not due to the obsolescence of the ideas of this ancient Hindu book.

On the other hand, when we abstract ourselves from the persuasion of religious preaching, with its impetus for perpetuity, and frame the *Gītā* in its time and in its place, its translation and interpretation must be very different from those produced by its apologists. For this reason, a philological and historical translation, that is, from a diachronic point of view, is very different from confessional translations, which are done from a synchronic perspective, that is, as if *Gītā* had been composed today, since, for these denominational translators, their message is ageless. Therefore, when perceived from a diachronic (historical) perspective, some contemporary translations, by apologists, are full of anachronisms, whose perception only happens to those familiar with the history of Indian thought.

Therefore, when an adept reads Franklin Edgerton's philological and diachronic translation of *Gītā* into English, his idea is that he is not a good translator. For translating the word *Sāmkhya* by "Reason-method" and the word *Yoga* by "Discipline-method", II.39 and V.04, (Edgerton, 1996: 23 and 55), it will seem like an ignorance of Hindu thought systems. What led F. Edgerton to translate through these terms is that, after reading the *Gītā*, translated from a historical perspective, we realize that the *Sāmkhya* mentioned there is not the same *Sāmkhya* from *Sāmkhyakārikā* authored by *Īshwarakṛṣṇa* (3rd or 4th century c.e.), still less the *Sāmkhya* of the

Sāmkhyapravachana Sūtra of *Kapila* (14th century c.e.), nor the *Yoga* of *Patānjali*, known as *Raja Yoga* or *Ashtangayoga*. Therefore, the meanings of *Sāmkhya* and *Yoga*, at the time of *Gītā*, were very different from the current meanings. So, if the Sanskrit words in translation are kept, as many translators do, the reader will think that they deal with these late systems, which were non-existent at the time of the composition of *Gītā* (Edgerton, 1996: part II, 62-70, see also : Dasgupta, 1975: volume II, 455-70 and for an in-depth study of *Gītā* in its rigorous historical context, see: Malinar, 2007).

Very different from the confessional perspective, the critical and historical study of the messages of the visionaries of the past (prophets, sages, enlightened, avatars, etc.) reveals that what they taught were not “eternal truths”, but ideas and practices that fit together limited in their times and regions. That is, they did not exceed the cultural limits of their times. What makes them, many times, seem extraordinary is the fact that their messages are addressed to very ignorant people, since in Antiquity and the Middle Ages 80 per cent to 90 per cent of the population was illiterate, so when someone brought ideas of outside, certainly from a more cultured place, with ideas transmitted through preachings with an appearance of divine or enlightened origin, the new teachings were received by the listeners as extraordinary, which resulted in a great impact.

The teachings of *Bhagavad Gītā*, like all other books of antiquity, fit perfectly in their historical context, these teachings can be found, with slight variations, in other previous texts or from the time of its composition: the *Vedas*, the *Upanishads* of the middle period and in the oldest ones, as well as in the *Brāhmanas*. In some passages, verses from the *Upanishads* are reproduced in the *Gītā*, some even literally and in full, especially from *Katha Upanishad*. When we analyze it historically, we realize that *Gītā* does not incorporate religious ideas from India after the 9th century c.e., when the interpolation process came to a halt, which is divided into a period of oral transmission, until perhaps the year 500 c.e., and that of handwritten transmission, with the fixation of the text as *textus receptus* (accepted text), after the comment by *Adi Shankarācharya* (9th century c.e.).

Contrary to what apologists preach, *Gītā* is full of primitive seminal ideas that had speculations developed in systems that emerged later. One of these speculations, whose development is possible to be perceived throughout the extensive speculative process, is the *Sāmkhya*, for being an old speculative effort in India, as well as for having influenced and, with that, it was an integral part of the cosmology of almost all Hindu systems, as well as maintaining a relationship of mutual influences with Buddhism and Jainism, with slight variations from one current to the other. Therefore, a system

with a long history. From a historical perspective, it is then possible to follow the development of Hindu cosmological speculation over time, from the *Sāmkhya* point of view, in the system itself (the ancient cosmological speculations, the proto-*Sāmkhya*, the Classic *Sāmkhya* and the *Sāmkhya* Renaissance - Larson, 1979: 75-153) and in the systems it influenced (*Yoga Darshana*, *Pañcharātra*, *Bhāgavatas*, Kashmir Shivaism, *Shaiva Siddhanta*, Shaktism, etc.), as speculations about *Tattvas* (Principles of Existence) grew and the results were categorized and finally "canonized".

So, when the perpetrators of the *Gītā* message translate the Sanskrit word *Vidyā* by "Science", the reader understands that it refers to the current concept of Science, therefore, making it impossible to perceive the immense evolutionary distance between the developed concept of Science today and the early pre-scientific speculation of Antiquity. For example, the phrase अध्यात्मविद्या विद्यानां - *adhyātmavidyā vidyānām*, in passage X.32, is translated by most translators as "of the sciences, (I am) the science of the Supreme Self". A more compatible translation at that time would be, "of the knowledges, (I am) the knowledge of the Supreme Self" (Edgerton, 1996: part 01, 103 and Sargeant, 2009: 442). The translation of *Vidyā* by "knowledge" instead of "Science" avoids the technical meaning that the term "Science" today has, a word that has

undergone different concepts throughout history as the methodology evolved, while the term "knowledge" is broader. That is, Science is just a modality of knowledge, according to a rigorous research methodology, for knowledge is a more appropriate translation for the meaning of that time, thus avoiding the technicality charge currently present in the term Science.

Also, when the word *Tattwa* is translated by "Cosmic Principle", the reader understands that at that distant time they knew the cosmos as we know it today, that is, the concept of cosmos was the same as we have today, known through powerful telescopes orbitals such as Hubble, Kepler and TESS,⁶ with millions of galaxies, black holes, exoplanets, supernovas, neutron stars, nebulae, dark energy and matter, gravity, neutrinos, etc. Likewise *Prakrti* for "Primordial Matter", which may lead the reader to understand that it refers to the subatomic particle known as the Higgs Boson⁷, currently recognized by the

⁶ Transiting Exoplanet Survey Satellite. Due to the darkness of the universe and the distance, exoplanets can only be seen by telescopes when they are in transit with the star they orbit, that is, in front of the star, as in the position of an eclipse.

⁷ Bosonic elementary particle predicted by the Standard Model of particles, theoretically arising shortly after the hypothetical massive scale Big Bang, expected to validate the current standard model of particles. It represents the key to explain the origin of the mass of the other elementary particles. It became known for being the most sought after

scientific community as the principle of all known matters (except dark matter), with existence confirmed in 2012 by the LHC Particle Accelerator in Switzerland, before the Higgs Boson was just a scientific theory, now it is a proven reality. Finally, the precise understanding of *Gītā* and other ancient books depends greatly on how some key terms are translated, that is, according to the cultural development of the time and place.

Cosmology

This is the science that studies the origin, structure and evolution of the universe, through Astronomy, Astrophysics and Particle Physics. The term *cosmos* derives from the Greek κόσμος - *kósmos*, which means “order” (Larsen, 2007: xvii), it was used for the first time by Pythagoras (6th and 5th centuries b.c.e.). Evidently, knowledge of the universe since the times of pre-Socratic cosmologists, to the present day, is very different as Modern Cosmology (Furley, 2004; Kragh, 2004 and 2007; Larsen, 2007: 37-58 and Baggott, 2018). The oldest cosmological notions were recorded in myths through Cosmogogenesis (or

particle in Modern Physics. It was predicted for the first time in 1964, by the British physicist Peter Ware Higgs (1929-), professor emeritus at the University of Edinburgh, Scotland, winner of the Nobel Prize in Physics in 2013, and confirmed its existence on July 4, 2012, by Particle Accelerator LHC, Switzerland.

Cosmogony - Origin of the Cosmos). Almost all the peoples of antiquity had their Creation Myths. The first rational speculations, challenging the mythological versions, through the observation of nature and logic, about the origin of everything (ἀρχή - *Árché*), were undertaken by the Ionian naturalists: Tales of Miletus (7th and 6th centuries b.c.e.), Anaximander of Miletus (7th and 6th centuries b.c.e.) and Anaximenes of Miletus (6th century b.c.e.).

When we read the ancient myths about creation, we soon find the presence of primordial water, in some reports it exists even before creation. In the Bible, it appears in the first verses about creation: "... The Earth was shapeless and empty (...) the Spirit of God hovered over the waters (*mayim*). (...) God said, Let there be a firmament between the waters, and separate it from one another. God made the firmament and separated the waters that were under the firmament from those that were above" (Genesis, 01.02-7). In the Vedic hymns, water (सलिलं - *salilam*) appears in one of the best-known mythological hymns, the Hymn of Creation (*Rg Veda*, X.129.03): "There was darkness covered by darkness at the beginning, all this (world) was indistinguishable water (अप्रकेतं सलिलं सर्वमा इदम् - *apraketam salilam sarvamā idam*)". The primordial waters are present in myths of the creation of other ancient peoples. Tales of Miletus imagined that water was the origin of all creation. Ancient

traditions speak of the existence of the Cosmic Ocean before creation.

Now, the curious thing is that, with the increase of knowledge about the universe, it was discovered that water in the liquid state is a rarity in the cosmos. Current research on exoplanets has revealed so far that a planet needs to be in close proximity to its star, in such a way that temperature provides for the maintenance of liquid water, and this condition is rare in the universe, which is why Earth is a privileged. The above myths about primordial waters, at the time of creation, are examples of how the ancient revelations do not exceed the limits of the knowledge available at the time of their compositions. In order to cover up this speculative obsolescence, defenders of ancient cultures introduce an “esoteric” meaning for these primordial waters, claiming that they are symbols that represent Primordial Matter. However, even so, when we analyze the description of this Primordial Matter by esotericists, what we realize is that it is full of fantasy speculation.

Like anybody, the ancients were also able to perceive the process of developing something from a potential thing, that is: the egg becomes a bird, the seed develops into a plant, the bud becomes a flower, the embryo develops into an adult creature and so on. Based on this idea, ancient Hindus created the presence of हिरण्यगर्भ - *Hiranyagarbha*, the Golden Embryo, in some creation myths. Then, some old speculations

coincide with some current scientific discoveries, which lead some religious interpreters to proclaim the actuality of the old ideas, since this process of passing from the potential to the manifest is a universal law, which is perceived until by a child.

As for the creation myths of the ancient Hindus, we are particularly interested here, which exposes creation based on an anthropocentric concept, this is the Hymn to *Purusha* (पुरुष सुक्त - *Purusha Sukta*), Hymn to the Cosmic Man, in *Rg Veda* X .90. In this text, the universe is created from the Cosmic Man (*Purusha*), so the moon was born from his mind, the sun from his eyes, the gods *Indra* and *Agni* were born from his mouth and *Vāyu* from his breath. From his navel, the firmament came, from his head the sky was produced, from his feet, the earth; and the four cardinal points came from his ear (*Rg Veda* X.90.13-4). Later we will point out and analyze how this anthropocentric idea persists, with variations, in the cosmology of *Gītā* and the *Sāmkhya* system, providing them with an anthropic character. This anthropocentric emphasis has led some authors to evaluate the cosmology of the *Sāmkhya* system as a "psychological cosmology" or a "cosmological psychology".

The Seminal Cosmology of the *Gītā*⁸

A first rudimentary enumeration of the structure of the cosmos, which can, in a way, be called the proto-*Sāmkhya* classification, is mentioned in *Gītā* in passage VII.04, with only eight *Tattwas*⁹ (Principles of Existence): “Earth (*bhūmi*) , water (*āpas*), fire (*anala*), air (*vāyu*), ether¹⁰ (*kham*), mind (*manas*), intellect (*buddhi*)

⁸ In the translations of the following verses, one or the other translation of a particular translator will not be used, due to the great divergence among the translators. To find out the extent of the differences among *Gītā* translations, see: Botelho, 2020.

⁹ तत्त्वम्– *Tattwam* is a Sanskrit term that is difficult to translate. It is a combination of the words तत् (*tat*), that, plus the ending त्वम् (*twam*), which is a ending to give the meaning equivalent to “ness” in English, as in the word happy + ness = happiness. So, literally, *Tattwam* means “thatness”. However, the term is most commonly translated as “principle of existence”, “element of existence”, “category” or “reality”.

¹⁰ The Sanskrit term *Kham* (or *Akāsha*) is commonly translated as ether. The latter, in Western physics, until at least the 19th century, was understood as a substance of great elasticity and subtlety, which penetrated the stellar and planetary space, not only filling the interplanetary spaces, but also the intermediate spaces between the particles of the air and other matter on Earth, the means by which light waves propagated. However, there is a difference; *Kham* (*Akāsha*) is not, for Hindus, associated with light, but with sound, the means by which sound propagates. Similar to western ether, *Kham* (*Akāsha*) also means ethereal space and is sometimes replaced by *antariksha*

and egoism (*ahamkāra*), this is my Matter (*Prakṛti*) divided into eight parts". Unlike the cosmology of the developed *Sāṃkhya* system, whose concern with the derivation of the *Tattwas* (Principles) from *Prakṛti* (Primordial Matter) is emphatic, the latter verse mentions the division of *Prakṛti* into eight *Tattwas*, but it is not mentioned that these eight *Tattwas* derive from *Prakṛti* (Primordial Matter).

In the following verse, it is mentioned that this is the lower matter (*prakṛti*), the upper matter is जीवभूत - *jīvabhūta*, the element of life (VII.05). The curious thing is that this is the only passage where some *Tattwas* (Principles of Existence) are mentioned as components of *Prakṛti* (Primordial Matter). In the following enumerations, the origin of the *Tattwas* from *Prakṛti* is not mentioned, a fact

(atmosphere), the space between Earth and Heaven. But, as one of the Five Elements (*Mahābhūtas*), it is conceived as a substance subtle and penetrating, filling the gaps between the particles of matter on Earth (Edgerton, 1965: 257n2). In Aristotelian cosmology, the universe was divided into two regions: the sublunar world and the supralunar world. The first region (sublunar) covered the Earth and the air up to the Moon and was composed of the four elements (air, fire, water and earth). In the second region (supralunar), the celestial bodies moved naturally in eternal, uniform and circular movements, without being subject to earthly laws. The stars, planets and celestial spheres were composed of an entirely different kind of matter, that is, the ether, the divine substance or the fifth element (*fifth essentia*). Unlike matter in the sublunar world, the celestial ether was pure and incorruptible (Kragh, 2007: 22).

that is very emphatic in describing the process of unfolding the upper *Tattwas* into lower *Tattwas*, in the most developed period of the *Sāmkhya* system, as we will see below. Therefore, *Gītā* does not describe the origin of the other *Tattwas*: the five *Jñānendriyas* (organs of knowledge), the five *Karmendriyas* (organs of action) and the five *Tanmātras* (objects of the senses). The prakritical origin of all *Tattwas* can only be deduced from passage IX.10: "With me (*Purusha*), as supervisor, the Primordial Matter (*Prakṛti*) generates all things animate and inanimate ...".

Later, in passage XIII.02 and 05, a more articulated and closer enumeration to the Classical *Sāmkhya*¹¹ model is mentioned with twenty-five *Tattwas*:

"The Great Elements (*Mahābhūtāni*),¹² Egoism (*Ahamkāra*),¹³ Intellect (*Buddhi*) and the

¹¹ A curiosity in *Gītā* is the fact that the word *Sāmkhya* is mentioned sometimes, as well as the enumeration of *Tattwas*, but it is not mentioned that *Tattwas* are a theme of the *Sāmkhya* tradition. For a complete list of twenty-five *Tattwas* according to Classical *Samkhya*, see: Larson, 1987: 49.

¹² These Five Great Elements (*Mahābhūtas*) are: earth (*bhūmī*), water (*āpas*), fire (*anala* or *agni*), air (*vāyu*), ether (*kham* or *akāsha*).

¹³ The term अहंकार - *ahamkāra*, literally: *aham* "I" plus *kāra* "author", therefore "I-author", more clearly: "I am the author", conveys the idea of selfishness and self-centeredness. The term is translated differently: sense of

Unmanifested (*Avyaktam*), the ten senses (*dashendriyāni*),¹⁴ the one (Mind)¹⁵ and the five pastures of the senses (*indriyagocharāḥ*)”¹⁶ (XIII. 05).

These are the twenty-four *Tattwas* of the *Kshetra* (literally: field, the manifested world), the

self, individuality, selfishness, self-awareness, self-centeredness, etc.

¹⁴ These ten senses (*indriyas*) are: the Five Organs of Knowledge (*Jñānendriyas*), eyes, ears, nose, tongue and skin; and the Five Organs of Action (*Karmendriyas*), hands, legs, mouth, genital organ and excretion organ.

¹⁵ Mind (*manas*) is curiously called "one" (*ekam*) in this passage, as it is the eleventh sense.

¹⁶ The compound word इन्द्रियगोचराः - *indriyagocharāḥ* has a poetic meaning in this passage, perhaps in order to metaphorize the word क्षेत्र - *kshetra* (field) mentioned in the previous verses, one of the many poetic beauties of *Gītā*. *Gochara* is a compound word that combines गौ - *go* (cow) + चर - *chara* (range, length, horizon, pasture, pasture), therefore, literally, *gochara* means "cattle range", "cattle pasture", "field" or "cattle pasture", so it was literally translated as "five pastures of the senses" (*pañcha indriyagocharāḥ*). Most translators translate it interpretively as "five sense objects", which is enlightening, but covers up the beautiful metaphor of this passage. These objects are the पञ्च तन्मात्राणि - *Pañcha Tanmātrāṇi* (lit. the five measures of that), that is, the five objects corresponding to the sense organs: sound (*śabda*), touch (*spṛṣha*), form (*rūpa*), taste (*rasa*) and smell (*gandha*). Because it is a mythical-poetic text, the *Gītā* has other passages like the one above, however, many of them are covered by adaptive translations that seek to convey the idea that *Gītā* is a text with a language of today (see: Botelho, 2020).

twenty-fifth *Tattwa* is the *Kshetrajna* (Knower of the Field), mentioned in verse XIII.02: “Know me as the Knower of the Field in all the fields ... (क्षेत्रज्ञं चापि मां विद्धि सर्वक्षेत्रेषु - *kshetrajnam chāpi mām viddhi sarvakshetreshu*)”. This Knower of the Field (*Kshatrajna*) corresponds approximately to the *Purusha Tattwa* of the Classic *Sāmkhya*.

The *Jnānendriyas* (or *Buddhīndriyāni*) are listed in the following verse:

“By directing the ear (*shrotram*), the eye (*chakshu*), the touch (*sparsha*),¹⁷ the tongue (*rasah*) and the

¹⁷ The organ should be the skin (त्वच् - *twach*) and not the touch (स्पर्श - *sparsha*); the latter is not a sense organ (*buddhīndriya*), but a *sparsha-tanmātra* (sense object of skin). A similar enumeration in *Sāmkhya Kārikā* XXVI uses *twach* (skin) instead of *sparsha* - touch (Sinha, 1915: appendix VI, 24 and Larson, 1979: 264, in the edition of Har Dutt Sharma, the Sanskrit word is स्पर्श - *sparsha* instead of त्वच् - *twach*, Sharma, 1933: २८). Also, the sense of *ghranam* for nose is rarely used; the most common term for nose is नासा - *nāsā*. *Ghranam* is mostly used for the sense of smell. Likewise, रसः - *rasah* is more used for the sense of taste, for the sense of tongue, the most used term is जिह्वा - *jihwā*. Due to these ambiguities and different wording, the *Gītā* translators were in doubt as to whether the first line of the verse referred to the *jnānendriyas* or the *tanmātras*. B. Bhagavan Das and S. Radhakrishnan translated all as *jnānendriyas* (Das, 1979: 266 and Radhakrishnan, 1949: 330). While F. Edgerton, W. Sargeant and W. J. Johnson mixed *jnānendriyas* and *tanmātras* (Edgerton, 1996: 145, Sargeant, 2009: 598 and Johnson, 1994: 65).

nose (*ghranam*), as well as the mind (*manas*), He enjoys the objects of the senses" (XV. 09).

Elsewhere, these *Tattwas* (Principles of Existence) are listed hierarchically:

"They (the sages) say that the senses (*indriyas*) are superior. The mind (*manah*) is superior to the senses. The intellect (*buddhi*) is superior to the Mind. What is superior to the intellect is He"¹⁸ (III.42).

The relationship between the Supreme Self and Primordial Matter, in a way that reminds us of the *Purusha/Prakrti* relation respectively, of the *Sāmkhya* system, is exposed in the following verse:

"With me (*Purusha*), as supervisor, the Primordial Matter (*Prakrti*) generates all things animate and inanimate; because of that, *Arjuna*, the universe revolves" (IX.10).

The final phrase "the universe resolves" (जगत् विपरिवर्तते - *jagat viparivartate*) is translated by some authors as "the world (*jagat*) revolves", instead of "the universe revolves", hence some interpreters are proud to proclaim that *Krshna*, or the ancient Hindus, had known the rotational movement of the Earth since Antiquity. What must to be clarified is the fact that the noun जगत् - *jagat* means both the mobile universe and the world, as

¹⁸ This "He" is the आत्मन् - *Ātman* (Self), as well as the reference in the next verse III.43. This verse is very similar to verse III.10 in *Katha Upanishad*.

it appears in dictionaries, because the ancients (including the ancient Greeks and Europeans of the Middle Ages) understood that the world was made up of the whole of the Earth, the Sun, the Moon, the planets and the stars, and these revolved around the Earth, all of which they called the world, so the world was synonymous with the universe. So, the world was not just the planet Earth for them. The term most used for the meaning of world, in the sense of planet Earth and other mythological worlds is लोकः - *lokaḥ*. The phrase “the universe revolves” (*jagat viparivartate*) is also poetic, a metaphor for “the universe moves”.

The *Purusha/Prakṛti* dualism is most clearly mentioned in the following verses:

“Primordial Matter (*Prakṛti*) is said to be the cause in the generation of cause and effect. The Spirit (*Purusha*) is said to be the cause in the experience of pleasure and pain” (XIII.20).

“The Spirit (*Purusha*), present in Primordial Matter (*Prakṛti*), experiences the States (*Gunās*) generated by Matter (*Prakṛti*). Attachment to the States of Matter (*Gunās*) is the cause of your births (of *Purusha*) in good and bad wombs”¹⁹ (XIII.21).

“The Supreme Self (*Paramātmā*) in this body is called the witness, the permitter, the supporter, the

¹⁹ “In good and bad wombs” is a metaphor for “in good and bad families”, another poetic passage in *Gītā*.

enjoyer, the Great Lord (*Maheshwera*) and also the Supreme Spirit (*Purusha*)" (XIII.22).

"He who, in this way, knows the Spirit (*Purusha*) and Matter (*Prakrti*), together with the States of Matter (*Gunas*), in any stage of transmigration, that he may exist, is not born again" (XIII.23) .

In another verse, with controversial translation, *Prakrti* (Matter) is mentioned as *Mahat Brahma*:

"The Great *Brahma* (*Mahat Brahma*) is my womb (*yonī*). In it, I place the embryo (*garbha*). Hence the origin of all beings, *Arjuna*" (XIV.03).

In order to cover up the gynecological ignorance of the *Gītā* composers, some translators translate the word गर्भ - *garbha* by "semen", "seed" or "germ", instead of "embryo" or "fetus". Translation through those previous terms is controversial; it does not appear in Sanskrit dictionaries. Some words derived from गर्भ - *garbha* are गर्भत्व - *garbhatwa* "pregnancy"; गर्भवती - *garbhavatī* "pregnant" and गर्भवध - *garbhavadha* "abortion", therefore all related to the embryo, and not to semen or seed. The Sanskrit words for semen or sperm are रेतस् - *retas* and रेत्र - *retram*, and for seed, the most common is बीज - *bīja*. Gynecologically, as we all know today, embryo (*garbha*) is not placed in the uterus (*yonī*), but the semen (*retram*) is put in the uterus. Then, admirers of *Gītā* had to change the meaning of the word *garbha* to semen or seed, otherwise it would be

comical. When the original Sanskrit meaning is perceived, it is possible to recognize that this passage is yet another example of how *Gītā* is a predominantly poetic text, without concern for physiological precision.

The *Gunas*

Essential elements in the creation and functioning of the universe, as well as the mind, are the त्रिगुणाः - *trigunāḥ*, the Three States of Matter (*Prakṛti*). Its importance is so great that the *Gītā* proclaims:

"There is no creature, either on Earth, or even in Heaven among the gods, that is free of these three states (*trigunas*) derived from Matter (*Prakṛti*)" (XVIII.40).

While the relationship between *Prakṛti* and the *Tattvas* is vaguely described, the relationship between that and the *Gunas* is abundant.

"Actions, everywhere, are carried out by the states (*gunas*) of Matter (*Prakṛti*) ..." (III.27).

"Know that Primordial Matter (*Prakṛti*) and Spirit (*Puruṣa*) are eternal, and also know that transformations (*vikāras*)²⁰ and states (*Gunas*), too, arise from Primordial Matter (*Prakṛti*)" (XII.19).

²⁰ विकारः - *vikārah* in the broad sense means any transformation or change of form, state or nature. In the technical sense attributed in the *Sāṃkhya* system, विकाराः - *vikārāḥ* are those 16 *tattvas* (the 5 *jñānendriyas*, the 5

These three states (*trigunas*) are सत्त्वम् - *sattwam* (equilibrium); रजस् - *rajas* (movement) and तमस् - *tamas* (inertia), which are present and influence all levels and circumstances of the universe, life and behavior, whether physical, mental or moral. Unable to recognize the mind as the symbolic representation of the world, the ancient authors of *Gītā* and *Sāmkhya* ideas imagined that the body, thought, emotions, behavior and morals were the result of states (*gunas*) of matter at different levels of existence, that is, in the physical, the mental and the moral. For these ancients, morality was not a value judgment, but a state of matter (*prakṛti*) acting in the mental world, neither the mind a creation of the developed brain (to know the history of brain evolution, see: Cunnane, 2010). Then, the physical body, the mind and morality are different states of Matter. For this reason, some authors call the *Sāmkhya* system "psychological cosmology" or "cosmological psychology", as it fuses physical body and mind in Matter (*Prakṛti*).

Since the matter is always whether in activity, or in inertia, or in equilibrium, the ancients speculated that the mind, the intelligence, the

karmendriyas, the 5 *mahābhūtas* and *manas*) who are created, but are not creators, such as *Mahat*, *Ahaṁkāra* and the 5 *Tanmātras*. However, it is difficult to know whether in this passage the word *vikārāḥ* means the 16 *vikāratattwas* mentioned in *Sāmkhyakārikā* III (Larson, 1979: 256 and 246).

emotions, the decisions, the behaviour, the morality and all other values judgements are also in the same conditions. They were still not able to understand the symbolic nature of mind, even less to know the mind as a creation of the brain, as understood by neuroscientists today.

The state (*guna*) of *sattwa* (equilibrium) associates the creature with attachments to pleasure and knowledge. The state of *rajas* drives action and emerges from desire and attachment, through which it blinds the creature with selfish attachments. The state of *tamas* obscures the illumination of knowledge and leads to many errors. *Tamas*, being a product of ignorance, blinds all creatures and imbues them with neglect, laziness and sleep. These three states predominate differently at different times. Therefore, sometimes the quality of *sattwa* predominates over *rajas* and *tamas*, so that moment is characterized by the appearance of correct knowledge in the mind. When *rajas* predominates over *sattwa* and *tamas*, the mind is characterized by greed, selfish efforts, passions, emotions and selfish desires. When *tamas* predominates over *sattwa* and *rajas*, ignorance, laziness, errors, illusions and false beliefs arise (XIV.10). Let us see how these circumstances are placed in *Gītā*:

“Harmony (*sattwa*), action (*rajas*) and inertia (*tamas*), such are the states (*gunas*) born from

Matter (*Prakṛti*), which bind in the body the imperishable being, oh *Arjuna*” (XIV.05).

In the instruction of *Gītā*, it is necessary to overcome the influences of the three *Gunas* for liberation (*moksha*) from the cycle of births and deaths (*samsāra*) to be possible. This overcoming is achieved through different disciplines, according to the interpretative currents.

“As for these (*gunas*), *sattwa*, free from impurity, bright and healthy, (even so) he holds (the aspirant) by the attachment to virtue and the attachment to knowledge, *Arjuna*” (XIV.06).

The idea is that, even though it is pure and enlightening, the state of *sattwa* needs to be overcome, because even so, it causes attachment to virtue and (worldly) knowledge, attachments that are forms of captivity that prevent liberation (*moksha*). The remedy for this, according to some currents of interpretation, is meditation, which elevates the practitioner to higher states of consciousness.

“Know that *rajas* is the nature of passion, arising from desire and attachment. It holds the being embodied by attachment to action, oh *Arjuna*” (XIV.07).

Note that the action of the *Gunas* has physical, mental, moral and antisoteriological roles, based on one or more states of matter.

“Know that, in fact, *tamas* is born of ignorance, which confuses all incarnate beings. It arrests, oh

Arjuna, for negligence, indolence and sloth" (XIV.08).

Note, again, the antisoteriological role of the *Gunas*, in view of the goal of liberation (*moksha*), as the *Guna* holds (*nibadhnāti*) the individual.

"*Sattwa* provides attachment to happiness, *rajas* to action, oh *Arjuna*, *tamas*, obscuring knowledge, provides attachment to negligence" (XIV.09).

"*Sattwa* arises, prevailing over *rajas* and *tamas*, oh *Arjuna*, *rajas* also arises prevailing over *sattwa* and *tamas*. So too, *tamas* prevails over *sattwa* and *rajas*" (XIV.10).

"When the light of knowledge shines through all the gates of this body²¹, then it can be recognized that *sattwa* is prevalent" (XIV.11).

"Greed, activity and the undertaking of actions; restlessness, desire; these are born when *rajas* is predominant, oh *Arjuna*" (XIV.12).

"Darkness and inertia, inattention and confusion; these are born when *tamas* is predominant, oh *Arjuna*" (XIV.13).

"From *sattwa* knowledge is born, and from *rajas*, greed. Inattention and illusion arise from *tamas*, and ignorance as well" (XIV.17).

See the destinations after the death of those who die under the predominance of one or other of these states of matter (*Gunas*).

²¹ Generally interpreted as a metaphor for the *īndriyas*, the sense organs.

"When an incorporated being goes into dissolution²² with the predominance of *sattwa*, then it reaches the immaculate worlds of those who know the Supreme" (XIV.14).

"He who goes to dissolution (death) when *rajas* is predominant, he is reborn among those attached to action (selfish), In the same way, when *tamas* is predominant, he is reborn in wombs of delusions"²³ (XIV.15).

See Krishna's answer to *Arjuna*'s question about the characteristics of the one who placed himself beyond the influences of the *Gunas*.

"For whom pain and pleasure are equal, which resides in the Self, for whom a handful of clay, a stone and a piece of gold are the same, for whom the pleasant and the unpleasant are the same, which is firm, for who is to blame and praise himself, for whom honor and dishonor are equal, impartial in regard to friend and foe, renouncing all endeavors, he is said to transcend the *Gunas*" (XIV.24-5).

Unlike the developed *Sāmkhya* system, *Gītā* cosmogenesis does not mention what Primordial Matter (*Prakṛti*) was like before the

²² "Go to dissolution" (प्रलयं याति - *pralayam yāti*) is a metaphor for "to die". Sometimes these metaphors are necessary, not only to embellish the text, but also to compose the number of syllables of the meter in the verse.

²³ "Born in wombs of delusions" (मूढयोनिषु जायते - *mūḍhayoniṣhu jāyate*) is a metaphor for "born in families of deluded people".

uterus (*yonī*) fertilization act known as *Mahat Brahma*, Great *Brahma* (XIV.03).

With more elaboration in chapter XVIII (19-39), what the *Gītā* explores most from the ideas of the primitive *Sāmkhya* is the moral and emotional doctrine of the *Gunas*, while ignoring their cosmogonic role, since the *Gītā* cosmological speculation is still very much primary and mythological.

Analysis

The correspondence between the mythology of the *Lokas* (worlds) and the idea of the *Tattwas* is not, strictly speaking, a relationship between macrocosms and microcosms respectively. The *Tattwas* notion of *Gītā*, as well as the *tattwic* doctrine of Classical *Sāmkhya*, does not seek to draw parallels between the universe and man. If perceived from the perspective of contemporary Cosmology, the mythology of the *Lokas* (worlds) includes a fanciful astronomy and excludes the atomistic (the description of the universal structure), while the *tattwic* notion of the *Gītā*, on the contrary, includes an atomistic primitive, but excludes astronomy. Therefore, both are not complete cosmologies in the current sense, still less because of the extravagance of myths and the unsustainability of speculations. Therefore, the doctrine of the *Tattwas* is a rudimentary anthropocentric cosmology, while the mythology of

the *Lokas* is a fantastic celestial-infernal cosmology (for an overview of the history of Cosmology, from myths to the current conception, see: Kragh, 2007).

The *Gītā* does not list the process of emanating the *Tattwas* in such an orderly manner as in verse XXII of *Sāmkhya Kārikā*:

“From *Prakṛti* (Primordial Matter) (emerges) the Great (*Mahat*),²⁴ from this (comes) Egoism (*Ahaṁkāra*), from this (comes) the group of sixteen²⁵. Also, out of five of these sixteen (comes) the five Dense Elements (*Mahābhūtas*)”²⁶ (Jha, 1965: 91-2 and Larson, 1979: 262-3).

The mention in *Gītā* closest to the order of emanation of *Sāmkhya Kārikā* appears in passage III.42.

“They (the sages) say that the senses (*indriyas*) are superior. The mind (*manah*) is superior to the senses. The intellect (*buddhi*) is superior to the Mind. What is superior to the intellect is He”. (*Gītā*, III.42).

This passage does not speak of emanation, but the order is almost the same, due to the order of superiority. The higher *Tattwas* (*Mahat*,

²⁴ Intellect.

²⁵ *Manas* (mind), the 5 *Jñānendriyas* (two-way organs: eyes, ears, nose, tongue and skin), the 5 *Karmendriyas* (organs of action: hands, legs, mouth, genitals, excretion organ) and the 5 *Tanmātras* (objects of the senses: sound, form, odor, taste and touch), Jha, 1965: 91-2 and Larson, 1979: 179-80.

²⁶ Éter, ar, fogo, água e terra.

Ahamkāra, etc.) are the first in the order of creation. Observe the anthropocentric character in the order of emanation from *Prakṛti* (Primordial Matter), during the process of emergence of the universe, the first *Tattwa* to emerge from the Unmanifested *Prakṛiti* was the Intellect (*Mahat*), then Egoism (*Ahamkāra*), Mind (*Manas*), the sense organs (*jnānendriyas*) and the action organs (*karmendriyas*), all principles corresponding to the human constitution, that is, the universe began with Intellect, Egoism, etc., and only after the complete man was created, the Earth, the Sun, the Moon, the planets, the stars, the comets, etc. appeared. Well, if man appeared before the creation of the Earth, where did this man stand, step and walk until the formation of the planet? Unless everything was created instantaneously.

In order to solve this problem, the interpreters of *Gītā* and *Sāmkhya*, especially the Theosophists, claimed that the first to emerge from *Prakṛti* was the Cosmic Intellect, that is, a part of the Cosmic Mind, and not the human intellect. However, this claim is complicated by the appearance of the next principle, *Ahamkāra* (Egoism), since it would be absurd the emergence of selfishness in the Cosmic (Divine) Mind. In this way, the order of emanation of the *Tattwas* is exactly the opposite of the current scientific conception of Natural History, whose intellect was the last to appear in the mind, since it depended mainly on the development of the Frontal Cortex, a

region of the brain where many of the intellectual functions are concentrated, after a long process of development of the human brain for millions of years (Connane, 2010: *passim*; see also: Christian, 2004: 149-90).

Also note that, in addition to the anthropocentric character, the first emanations from the universe have a moralistic character, since the second Principle (*Tattwa*) to arise from Primordial Matter (*Prakṛī*) was Egoism [*Ahamkāra* - *aham* (me) + *kāra* (author), therefore: I-author, that is, the feeling of the author of the actions by the individual, instead of attributing them to god], a cosmogonic lack of knowledge, worse than that only the idea of Original Sin. In other words, the universe has already emerged with a fundamental moral-religious mentality.

Anthropocentrism in the ideas of creation is common in almost all mythologies. In most of them, the universe is created simultaneously, or almost simultaneously, with man. The ancients did not know the billions of years that preceded the emergence of humanity. And when man is created in these myths or in speculations (as in *Sāmkhya*), he is created exactly like the current man, therefore those millions of years of hominid evolution are not known, through the appearance of *Homo Erectus* (7 million years ago), *Homo Habilis* (2 -1.5 million years ago) and *Homo Sapiens* (250 thousand years ago), until the emergence of human civilization, with the

beginning of the Holocene Era, that is, after the end of the last Glacial Era, about 10,000 years ago (Christian, 2004: 139-203 and Wood, 2005; for a general chronological scheme from the Big Bang to the rise of humanity, see: Christian, 2004: 499-504).

The main reason for the presence of anthropocentrism in the creation accounts is Soteriology (idea of salvation/liberation), since these ideas of how the world and humanity emerged take place within religious cultures. For these religious, the world is created to serve as a stage for the performance of the drama of the trajectory of humanity to God, therefore, for them, a world without man is a useless, meaningless and purposeful world. On the other hand, from the point of view of Natural History, the world, only in the period of humanity's presence, is a very short-lived world, since the Earth was formed 4.5 billion years ago, according to the unanimity of the researchers, and humanity emerged with *Homo Sapiens*, only about 250 thousand years ago (Christian, 2004: 500-2). Finally, the Earth waited almost 4.5 billion years to receive humanity and, then, to witness the action of religion. In other words, religion played an influential role in the Cultural History of civilizations, but a very short time in the Earth's Natural History.

Badly Stitched Patches

The superficial seminal ideas of the *Tattwas* in *Gītā* are complemented by the interpreters with ideas drawn from the most developed doctrine of the *Tattwas* of the *Sāmkhya* System. If this procedure is historically feasible, this is an issue to be discussed. For, the speculative primitivism of a poetic text such as *Gītā* is closer to the tattwic notions of *Katha* and *Shwetashwetara Upanishads*, whose compositions may be contemporary, than to the developed and systematic elaborations of *Sāmkhya Kārikā* of *Ishwarakrshna*, a text subsequent to *Gītā* and further away from subsequent comments, from which many interpreters draw explanations to fill in the *Gītā* gaps.

Attempts to amend obsolescences are persistent. In an age such as the present, whose knowledge changes as quickly as never before, so religious ideas and practices age more rapidly, the imagination of translators and interpreters who attempt to perpetuate the teachings of *Gītā* needs perspicacity in order to cover up this aging with current terms. Thus, early speculation about the principles of the universe is interpreted as *Tattwa Vidyā* (Science of the Cosmic Principles), and those who know this "science" are known as *Tattwavid*s or *Tattwarshis* (Seers of the *Tattwas*).

Now, these ancient and primitive speculations about the order of the emanation of

the universe, as well as its classification in rigid categories (*tattwas*) are not Science, in the contemporary sense of the term, they are only rudimentary speculations from the pre-scientific period. Neither is it necessary to be a seer (*tattwavid*) to realize that something has the potential to develop into something else, such as the egg becoming a bird, the seed into a tree, the embryo into an adult creature, etc., even a child perceives this phenomenon. Therefore, the notion of *Mulaprakrti* (Root Matter) is an intuitive sensation, not a scientific investigation, neither clairvoyance. Pre-Socratic cosmologists in ancient Greece also looked for the Principle (*Arché*). What confessional interpreters do not take into account, for not interpreting *Gītā* from a diachronic (historical) perspective, is that in Antiquity, almost all were illiterate, few were those who had the opportunity for an intellectual education, then, in an ancient superstitious culture, like Hindu culture, someone who had an extraordinary idea was considered a seer (*rshi*).²⁷ As a result, admiration for the sages was enormous, in the midst of a multitude of illiterate and uneducated people.

It is enough to see with a careful and critical eye that the reader will be able to perceive the primitivism and the banality of *Tattwas'* idea. Primitivism is notorious for the classificatory

²⁷ An example that reminds us of that familiar phrase: "In the land of blind ones, whoever has only one eye is king".

character of the Principles (*Tattwas*), a typology typical of the culture of Antiquity, when it was concerned with classification, without taking into account the evolution of each item within each class. This trend was only corrected completely from Charles Darwin's Theory of Evolution of Species. The *Tattwas'* classificatory rigidity is typical of ancient speculations. In the tattwic speculation, there is no evolution of the items within each category (*tattwa*), nor the juxtaposition of the item of one class with the item of another class. Strictly speaking, according to current knowledge, the limits of the categories (principles) are not so strict, as it is known today. In Antiquity, the analysis were more typological, that is, each item strictly within its class, currently they are more evolutionary. With the recent scientific knowledge of the phenomenon of evolution, rigid classification theories have lost their value, giving way to more elastic and evolutionary classification criteria for species and classes.

To consider that someone who perceives the correspondence between the sense organs (*jñānendriyas*) and the sense objects (*tanmātras*) is a seer (*tattwavid*), can only be a judgment of a very primitive culture. It is not necessary to be a seer to realize that the eye perceives the form, that the ear perceives the sound, that the nose perceives the odor and so on; even a child perceives these phenomena. Neither that earth is matter in the solid state, that water is matter in the

liquid state, that air is matter in the gaseous state, etc. In addition, it is necessary to recognize that *ākāsha* (ether) is a fictitious matter, created in order to fill the ignorance of that time about the nature of space and that of the sound propagation.

Anyway, after this brief analysis, the question that remains is what is the need for a seer to elaborate a classification of a cosmos so primitive and banal from a perception that even a child perceives?

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